

78
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NOTES ON A SPECIMEN OF *COTTUS BAIRDII* FROM LAKE MICHIGAN.

Since the publication of his "Nomenclatural Notes on the Cottoid Fishes of Michigan,"¹ the writer has obtained an additional specimen of *Cottus bairdii* Girard, a species there discussed. This fine specimen, the first to be recorded from Lake Michigan, but agreeing closely with Lake Superior material, was recently brought alive to the writer by Mr. Charles Brandler. It had just been caught (May 29, 1919) on an angleworm bait on the bottom of Lake Michigan near shore, from a pier in Jackson Park, Chicago. The stomach contained the pupa of a caddis-fly.

Length to caudal, 75 mm.; dorsal rays, VIII, 17; anal rays, 13 (the last ray of dorsal and anal fins counted as double); pectoral rays, 16; depth, 5.25 in standard length; head (to end of opercular membrane), 3.3; eye, 4.5 in head; upper jaw, 2.35; a narrow band of teeth on front of palatines; a band of spaced, spine-like scales on trunk below the lateral line, which ends below middle of spinous dorsal. Flesh very soft in life, the body very flexible.

¹ Hubbs, Occ. Pap. Mus. Zool. Univ. Mich., No. 65, April 18, 1919, pp. 1-9.

Colors in life rich brown (due to the extensive development of comparatively large erythrophores and xanthophores), broken by fine reticulations and spots, largest ventrally, of white or silvery blue. Very indefinite darker bars or saddles located at the nape, below the first and the last third of the base of the spinous dorsal, below the second dorsal (three bars) and at the base of the caudal fin; these bars separated by secondary bars or blotches, and all irregularly and interruptedly extended onto the middle sides. Belly silvery white, punctulate with black; shoulder-girdle and throat so densely punctulate as to appear rich brown, with indistinct white spots; lips dark brown; sides and top of head reddish, with fine black spots, and white reticulations. Rays and adjacent portions of the membranes of the vertical and pectoral fins alternately spotted with dusky red and pale yellowish; the membranes, particularly of the spinous dorsal, marked with some black pigment over the body bars; tips of dorsal spines red; pelvic fins pigmented.

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SECOND AUTHENTIC RECORD OF CAPE-LIN (*MALLOTUS VILLOSUS*) ON THE MAINE COAST.

On April 9, 1919, two capelin were taken with smelts in smelt-fishing operations at Winterport, Maine. One of the specimens was sent to the Bureau of Fisheries by Mr. James D. DeRocher, superintendent of Craig Brook Fisheries Station, for identification. Mr. DeRocher was informed that several other specimens had previously been taken at the same place.

It is interesting to note that the capelin were taken so far up the Penobscot River, fully 45 miles from the open sea. It is possible that stray capelin

fell in with a school of smelts which was on its way up river to breed.

The first capelin record for Maine was published in a previous number of COPEIA. In 1917 considerable numbers had been taken in Passamaquoddy Bay and near Dennysville, in the herring weirs with the herring. They were noticed particularly in the catches in the latter part of November.

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REDISCOVERY OF *AMPHIARDIS INORNATUS* (GARMAN), WITH NOTES
ON OTHER SPECIMENS
FROM OKLAHOMA.

A small collection recently received by the Department of Herpetology of the American Museum of Natural History from Theodore Beard, a student in the Sapulpa, Oklahoma, High School, contains the following species:

1. *Bufo woodhousii* Girard, Rocky Mountain Toad. Adult and young.
2. *Crotaphytus collaris collaris* (Say), Collared Lizard; "Mountain Boomer."
3. *Sceloporus consobrinus consobrinus* Baird and Girard, Oklahoma Swift.
4. *Heterodon contortrix* (Linn.), Spreading Adder.
5. *Elaphe obsoleta obsoleta* (Say), Black Chicken Snake.
6. *Lampropeltis calligaster* (Say), Kansas King Snake.

A juvenile specimen, remarkable in having 27 rows of dorsal scales instead of the normal 25. Its

stomach contained a specimen of *Sceloporus consobrinus consobrinus*. Branson (1904, Kansas Univ. Sci. Bull., Vol. II, p. 397) reports that mice form the chief food of this species in captivity, his specimens having refused lizards.

7. *Lampropeltis triangulum amaura* (Cope). Identification provisional.

8. *Amphiaridis inornatus* (Garman).

The rediscovery of this species, which has been known only from the two type specimens from Dallas, Texas, since its description in 1883, is of exceptional interest. The specimen is a male, measuring 230 mm., tail 50 mm., or .22 of the total. In the larger type 260 mm. in length, the tail measured only .17 of the total, obviously a sex difference, as the present example also has fewer ventral plates, 119 compared with 125-129 of the types, and more subcaudals, 46 instead of 36. As in the original specimens, the internasals are unsymmetrical, the one on the right being smaller in this case. The species is readily recognized by the long, narrow loreal, entering the eye together with the prefrontal; by having only five supralabials; in conjunction with seventeen rows of keeled dorsal scales, the outer broad and very faintly keeled.

The specimen was plowed up in a piece of land which was being broken for the first time, a creek bottom field subject to overflow and covered with tough matted grass and sedge. Its burrowing habitat accounts probably for its rarity in collections.

9. *Akistrodon mokasen* Beauvois, Copperhead.

10. *Chelydra serpentina* (Linn.), Snapping Turtle.

Two juvenile specimens recently hatched, with distinct white spots on the submarginals and the borders of the plastron.

11. *Terrapene ornata* (Agassiz), Great Plains Box Turtle.

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CHARACTER AND FEEDING HABITS OF
FARANCIA ABACURA, THE SO-
CALLED "STINGING SNAKE."

The writer came to Clarksdale, Miss. 30 years ago, which then became his permanent official residence. Shortly after, stories were heard about the prevalence of numerous "stinging snakes" in the neighborhood, and a planter offered to bring him the next one found. In a few days on reaching his office he found a snake of unusual appearance awaiting him. It had just been killed, but had enough vitality for tail movements. It was carefully carried on a fire poker to the porch for good light. The poker was pressed on the tail, which set up a lively oscillation, and the observer distinctly saw a sting, protruded and withdrawn "in a flash," but saw no repetition of the exposure. A dissection showed the tail vertebrae descending in a diminuendo to the fine pointed extremity of the tail, and no place for a "sting." This shows that we are very likely to see what we expect to see, when snakes are involved; and the average person is prone to accept first impressions, and any extravagant statement about snakes without any inclination to verify, or disprove them.

Some weeks later the writer captured a live specimen of *Farancia* five feet long, when driving in a buggy in a road on the bank of a morass, from which the snake had evidently just emerged, as it had a bright shiny appearance, jet black with scarlet points extending up onto the sides at intervals of a few inches; and made a very handsome display.

One day the *Farancia* and a *Crotalus* were liberated together in a room. *Farancia* was first placed in the room, and was extended at full length near

one end of the room. The rattler, $4\frac{1}{2}$ feet long, was then introduced in a state of high irritation, having been hauled out of his box by a string around his neck. He took a position on one side of the room several yards from *Farancia*. The latter made no movement when the rattler appeared, except to open his mouth very wide, and kept it open.

Farancia abacura, when retreating from pursuit was observed to curl up the tip of the tail into a little vertical curl. After taking refuge in a patch of weeds, the snake when disturbed was found to have thrust its head down under the convolutions of the body, where it secured a hold on the roots or bottom of stalk of the weeds, either with the mouth or turns of the neck. The tail was conspicuously elevated and oscillated with much agility as if for defense.

When in captivity and frequently placed in a tub of water, the snake invariably and persistently explored around the bottom of the tub with its nose for some minutes, and then crawled out of the tub and endeavored to make its way to a ditch outside the yard, that contained some water and mud; and it showed a marked determination to reach the ditch. This specimen, five feet long, was wholly inoffensive and quite docile, and when being handled, showed a disposition to explore with its pendent tail, seeking any opening in the observer's garments in which to insert itself. It was not observed to actually coil its tail around any object. When liberated after six weeks' captivity the snake was placed near the water's edge and gently pushed into the water by the observer's foot in a bayou having a thick bed of soft mud. Whereupon the snake disappeared in a few seconds by burrowing head foremost into the mud. A gentlemen of veracity told the observer that he had seen one of these snakes with a "mud eel" in its mouth. Twenty-five or thirty years ago there were many marshy tracts and areas of low woodland in this neighborhood that were then being drained and

cleared, and this observer was informed by planters that numerous "stinging snakes" were found and killed in those localities. This observer having had many years of close association with marshes, brakes and bayous, in this region, has seen only one live specimen of *Farancia abacura* (except in the Memphis Zoo), the inference being that the snake is habitually concealed in the mud constituting its habitat.

Upon the above rather meager array of facts, the following hypothesis has been erected to account for the snakes feeding habits and manner of life.

Farancia abacura has its habitat in morasses and cypress brakes in the Yazoo basin and low grounds adjacent to the Mississippi river in the State of Mississippi. This reptile feeds upon the creatures that have their dwelling in the soft mud that constitutes its habitat, as salamanders, "mud eels," newts, "ground puppies," etc. When pursuing its prey in the mud, and after seizing it, the snake feels around with its tail to find a projecting root or other solid object, around which the tail is coiled in order to afford a "purchase" for withdrawing the victim from the surrounding medium of mud; and so enabling the snake to devour its catch. The long continuance and many repetitions of this performance has developed in the snake the habit, when approached menacingly, of concealing its head and flourishing its tail in a manner that is strongly suggestive of the use of the tail as a weapon; hence, the wide prevalence of the fallacious notion that it is possessed of a deadly sting.

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A LARGE COACH-WHIP SNAKE.

I have been interested in securing records regarding the largest size reached by the various species of snakes in Florida. Anyone having opportunity to measure really large individuals would confer a great favor by writing me. This spring Winthrop

Brooks and I measured a large Coach Whip near Hallandale. We were motoring northward on the Dixie Highway just at dusk when a large snake was seen writhing in the dust. We stopped at once. The snake was hurt badly and could not be saved for a specimen. It had been run over by a camion just ahead of us. We stretched it out by the roadside and measured it; it taped just 98 inches and careful examination showed that it had lost possibly four inches of the tip of its tail. This is the largest individual of *Coluber flagellum flagellum* that I have measured myself. I do not imagine that many Gopher-Snakes (*Drymarchon corais cooperi*) really grow much longer, although one hears as many Snake stories in Florida as one may read in "travel books" about Brazil.

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